

# PATENT COOPERATION TREATY

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 26 January 2001 (26.01.01)	
<b>International application No.</b> PCT/US00/07281	<b>Applicant's or agent's file reference</b> 10P/G337
<b>International filing date</b> (day/month/year) 17 March 2000 (17.03.00)	<b>Priority date</b> (day/month/year) 17 March 1999 (17.03.99)
<b>Applicant</b> GIOIA, Sandra, L. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
17 October 2000 (17.10.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b>  Henrik Nyberg  Telephone No.: (41-22) 338.83.38
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PCT

9/914639<sup>8</sup>

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

REC'D 19 SEP 2001

(PCT Article 36 and Rule 70)

WIPO

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Applicant's or agent's file reference 10P/G337		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/07281	International filing date (day/month/year) 17 March 2000 (17.03.2000)	Priority date (day/month/year) 17 March 1999 (17.03.1999)	
International Patent Classification (IPC) or national classification and IPC IPC(7): G06F 17/50 and US Cl.: 703/1; 705/27			
Applicant GIOIA, SANDRA L.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of ___ sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input checked="" type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 17 October 2000 (17.10.2000)		Date of completion of this report 24 August 2001 (24.08.2001)	
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230		Authorized officer Tariq Hafiz <i>Peggy Harwood</i> Telephone No. (703)305-3900	

**1. Basis of the report****1. With regard to the elements of the international application:\***

- ☐ the international application as originally filed.
- ☒ the description:  
pages 1-21 as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages 22-29 as originally filed  
pages NONE, as amended (together with any statement) under Article 19  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages 1-15 as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_
- ☒ the sequence listing part of the description:  
pages NONE as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☒ The amendments have resulted in the cancellation of:**

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/~~fig~~ NONE

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

WRITTEN OPINION

International application No.  
PCT/US00/07281

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. STATEMENT**

Novelty (N)	Claims <u>56-65</u>	YES
	Claims <u>1-55</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-65</u>	NO
Industrial Applicability (IA)	Claims <u>1-65</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Please See Continuation Sheet

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Claim 56 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof:

There are two claim 56: one dependent on claim 43 and one that is an independent claim.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/00/07281

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Certain Documents Cited

1. Certain published documents (Rule 70.10)

Application No

Publication Date

Filing Date

Priority date (valid claim)

Patent No.

(day/month/year)

(day/month/year)

(day/month/year)

None

None

None

None

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure

Date of written disclosure referring to  
non-written disclosure

(day/month/year)

(day/month/year)

None

None

None

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Claims 56-65 lack novelty under PCT Article 33(2) as being anticipated by Fino et al.

Fino et al. (US Pat. No. 5,689,705) discloses a system for facilitating sales of a home. The system includes a "Plan Selection Module" for selecting a plat, "Options Module" for selecting the options of the home to be built on the plat, "Finance Module" for determining financing information of the buyer, and "People Information Module" for inputting customer information and profile information into the system.

Claims 1-56 lack an inventive step under PCT Article 33(3) as being obvious over Fino et al. in view of Grabowski or Byrnes.

Fino et al. (US Pat. No. 5,689,705) teaches a system for facilitating sales of a home as described above including prices for upgrades and purchase price of the home. Fino et al. specifically teaches displaying floor plans of the available homes and options available, but does not specifically teach that these options placed on the plan using what is well known as the "click-and-drag" method.

Byrnes ("VISIO Technical v4.1") is a software review article of a product called VISIO Technical by Visio Corporation. VISIO is a drawing/CAD software that allows a user to display various types of drawings. VISIO Technical is a specific package of what is known as "stencils" for various technical subject matter including architectural drawings. The article points out that VISIO allows importation of files from outside sources (e.g., AutoCAD). Each template (i.e., a drawing file) opens with associated stencils (i.e., available drawing objects) that the user can click and drag onto the drawing. Once the icon for a particular stencil is placed into the drawing, VISIO automatically inserts that drawing object into the opened drawing. As taught in the article, VISIO Technical comes with 36 predefined templates including "Building Mechanical", "Home-Bathroom and Kitchen", and "Space Planning". These features are more apparent in the article discussed below.

Grabowski ("Starting a New Visio Drawing") is a technical assistance document to help users use VISIO. In the article, there is an elaboration of what is included in the VISIO Technical for the "Home-Bath and Kitchen" template. The stencils include walls, shell and structure, cabinets, bath-kitchen appliances, architectural dimensions, annotations, and electrical/telecom. As shown in the figure on page 2 of the article, each stencil is represented by an icon that is clicked and dragged onto the drawing field.

It is readily apparent from the figures on pages 19, 23, 29, 41, 108, 120, and 218 of the User's Manual for VISIO ("Using VISIO Products"), VISIO Technical is a software for viewing and modifying architectural floor plans with various options encapsulated by icons in a stencil collection tool box.

Hence, it would have been obvious for one with ordinary skill in the art to use a floor plan software product such as VISIO in the sales software as disclosed in Fino et al. because the floor plan display software by Visio is a lot more convenient to use than the

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

display software in Fino et al.

As for scanning floor plans to be displayed on the computer, there are only two ways that a floor plan database is created on the computer: a manual process using a CAD software, or digitizing (i.e., scanning) hand-drawn floor plans. Hence, the floor plans in Fino or in VISIO already envisions scanning in floor plans.

As for web access, the system in Fino et al. functions on a network of computers in various locations. Further, images in VISIO can be converted into HTML pages (p. 120) to be displayed over the Internet.

----- NEW CITATIONS -----



# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
SANDRA L. GIOIA  
77724 JUSTIN COURT  
PALM DESERT, CA 92211

## PCT

### NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year)

14 SEP 2001

Applicant's or agent's file reference

10P/G337

#### IMPORTANT NOTIFICATION

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US00/07281

17 March 2000 (17.03.2000)

17 March 1999 (17.03.1999)

Applicant

GIOIA, SANDRA L.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

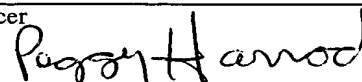
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Facsimile No. (703)305-3230

Authorized officer

Tariq Hafiz

Telephone No. (703)305-3900





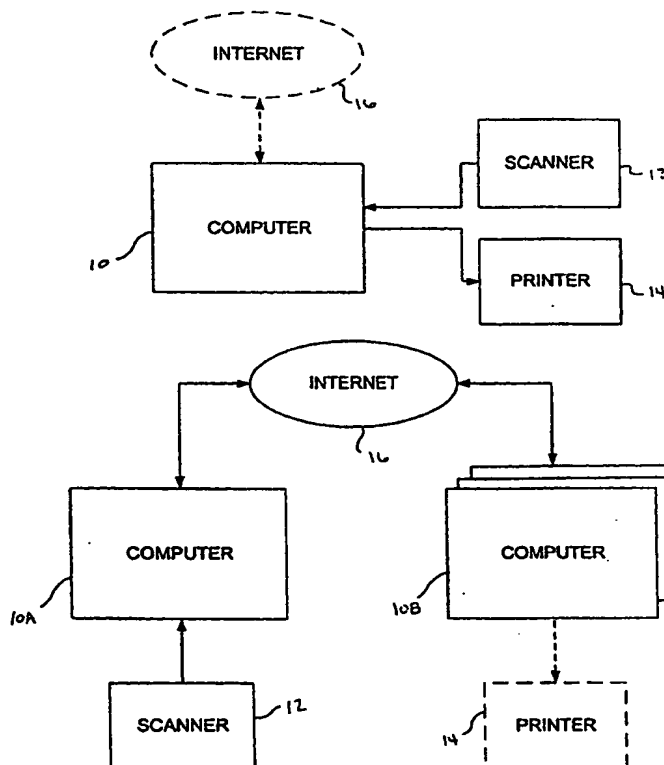
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>G06F 17/50</b>	<b>A1</b>	(11) International Publication Number: <b>WO 00/55771</b> (43) International Publication Date: 21 September 2000 (21.09.00)
<p>(21) International Application Number: PCT/US00/07281</p> <p>(22) International Filing Date: 17 March 2000 (17.03.00)</p> <p>(30) Priority Data: 09/271,093 17 March 1999 (17.03.99) US</p> <p>(71)(72) Applicant and Inventor: GIOIA, Sandra, L. [US/US]; 77724 Justin Court, Palm Desert, CA 92211 (US).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only): AMINLOO, Ramin [IR/US]; 27456 Century Circle, Laguna Niguel, CA 92677 (US).</p>		<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> With international search report. With amended claims.</p>

(54) Title: SYSTEM FOR SPECIFYING BUILDING UPGRADE OPTIONS AND DETERMINING BUILDING COST

## (57) Abstract

A method for specifying upgrade options for a new building, e.g., a home, includes the steps of scanning (12) a floor plan of the new building into a computer (10), displaying a plurality of icons representative of a corresponding plurality of different upgrade options upon the monitor of the computer (12) while simultaneously displaying the scanned floor plan, selecting a plurality of desired upgrade options and designating where the upgrade options are to be placed in the building by placing the icons at corresponding locations upon the displayed floor plan.



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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EE	Estonia	LR	Liberia	SG	Singapore		

1 what is claimed is:

1. A method for specifying upgrade options for a new building comprising the steps of:

5 scanning a floor plan of the building into a first computer to form a scanned floor plan;  
displaying the scanned floor plan upon the monitor of a second computer while simultaneously displaying a plurality of icons representative of a corresponding plurality of different upgrade options upon the monitor of the second computer; and

10 selecting at least one of the available upgrade options and designating where the upgrade option is to be placed in the building by placing the icons at corresponding locations upon the displayed floor plan.

2. The method as recited in Claim 1, wherein the first computer and the second computer are the same computer.

15 3. The method as recited in Claim 1, wherein the second computer comprises at least one of a laptop computer, a palm computer, a pen base computer, a desk top computer and any wireless network computer.

20 4. The method as recited in Claim 1, wherein the step of displaying a plurality of icons comprises displaying a plurality of icons in a toolbox and the icons are placed by voice recognition and/or by dragging and dropping icons.

25 5. The method as recited in Claim 1, further comprising the step of adding a text comment to a dropped icon.

6. The method as recited in Claim 1, further comprising the step of compiling a list of selected upgrade options.

30 7. The method as recited in Claim 1, further comprising the step of compiling a list of selected upgrade options and prices for the selected upgrade options.

8. The method as recited in Claim 1, further comprising the step of calculating a total price for the selected upgrade options.

35 9. The method as recited in Claim 1, further comprising the step of calculating a total price for the building, including the upgrade options.

1           10.    The method as recited in Claim 1, further comprising the step of forming a database  
of purchaser information.

5           11.    The method as recited in Claim 1, further comprising the step of forming a database  
of purchaser information, the database comprising the name of the purchaser and the upgrade  
options purchased by the purchaser.

10          12.    The method as recited in Claim 1, wherein the step of displaying a plurality of  
icons comprises displaying only those icons which are representative of upgrade options that are  
available for the displayed floor plan.

13.    The method as recited in Claim 1, wherein the floor plan and the icons are  
displayed as part of a web page.

15          14.    The method as recited in claim 1, wherein the building comprises a home.

15.    A system for specifying upgrade options for a building, the system comprising:  
a scanner for scanning floor plans;  
a computer in communication with the scanner, the computer having a monitor; and  
20          wherein the computer is configured to display a plurality of icons representative of  
upgrade options while simultaneously displaying a scanned floor plan, the computer being further  
configured to allow selected icons to be placed at desired locations upon the displayed floor plan.

25          16.    The system for specifying upgrade options for a new building as recited in Claim  
15, further comprising a plurality of digitized floor plans stored for use by the computer.

17.    The system for specifying upgrade options for a new building as recited in Claim  
15, wherein the computer comprises at least one of a laptop computer, a palm computer, a pen  
base computer, a desk top computer and any wireless network computer.

30          18.    The system for specifying upgrade options for a new building as recited in Claim  
15, wherein the computer is configured to display the icons in a toolbox, and to place the icons  
by voice recognition and/or by dragging and dropping icons.

35          19.    The system for specifying upgrade options for a new building as recited in Claim  
15, wherein the computer is configured to facilitate adding a text comment to an icon.

20.    The system for specifying upgrade options for a new building as recited in Claim

1 15 wherein the computer is configured to facilitate compiling of a list of selected upgrade options.

5 21. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to facilitate compiling a list of selected upgrade options and prices for the selected upgrade options.

10 22. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to calculate a total price for the selected upgrade options.

23. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to calculate a total price for the building, including the upgrade options.

15 24. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to form a database of purchaser information.

20 25. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to form a database of purchaser information, the database comprising the name of the purchaser and the upgrade options purchased by the purchaser.

25 26. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to display only those icons which are representative of upgrade options that are available for the displayed floor plan.

27. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to display the floor plan and the icons as part of a web page.

30 28. The system for specifying upgrade options for a new building as recited in claim 15, wherein the new building comprises a home.

29. A system for specifying upgrade options for a new building, the system comprising:

35 a plurality of digitized floor plans;  
a computer having a monitor for displaying the floor plans; and  
wherein the computer is configured to display a plurality of icons representative of upgrade options while simultaneously displaying a selected one of the digitized floor plans, the

1 computer being further configured to allow selected icons to be placed at desired locations upon  
the scanned floor plan, such as by voice recognition and/or by dragging and dropping icons.

5 30. The system for specifying upgrade options for a new building as recited in Claim  
29, wherein the digitized floor plans comprise scanned floor plans.

10 31. The system for specifying upgrade options as recited in claim 29, wherein the  
computer is configured to display only those icons which represent upgrades that are available  
for a floor plan which is currently being displayed.

32. The system for specifying upgrade option as recited in claim 29, further comprising  
a toolbox within which the icons are displayed upon the monitor.

15 33. The system for specifying upgrade options as recited in claim 29, wherein the  
computer comprises at least one of a laptop computer, a palm computer, a desk top computer and  
any wireless network computer.

20 34. The system for specifying upgrade options as recited in claim 29, wherein the  
computer is configured to facilitate adding a text comment to an icon.

35 35. The system for specifying upgrade options as recited in claim 29, wherein the  
computer is configured to compile a list of selected upgrade options.

25 36. The system for specifying upgrade options as recited in claim 29, wherein the  
computer is configured to compile a list of selected upgrade options and prices for the selected  
upgrade options.

30 37. The system for specifying upgrade options as recited in claim 29, wherein the  
computer is configured to calculate a total price for the selected upgrade options.

38. The system for specifying upgrade options as recited in claim 29, wherein the  
computer is configured to calculate a total price for the building, including the upgrade options.

35 39. The system for specifying upgrade options as recited in claim 29, wherein the  
computer is configured to form a database of purchaser information.

40. The system for specifying upgrade options as recited in claim 29, wherein the

1 computer is configured to form a database of purchaser information, the database comprising the  
name of the purchaser and the upgrade options purchased by the purchaser.

5 41. The system for specifying upgrade options as recited in claim 29, wherein the floor  
plan and the icons are displayed as part of a web page.

42. The system for specifying upgrade options as recited in claim 29, wherein the new  
building comprises a home.

10 43. A computer usable medium having computer readable program code embodied  
therein, the computer readable program code being executable to perform the steps of:

displaying a floor plan upon a monitor;

displaying a plurality of icons representative of a corresponding plurality of upgrade  
options upon the monitor, the icons being displayed simultaneously with the floor plan; and

15 facilitating selection of desired upgrade options and facilitating designation of where the  
selected upgrade options are to be placed in a building by placing the icons at corresponding  
locations upon the displayed floor plan, such as by voice recognition and/or by dragging and  
dropping icons.

20 44. The computer usable media as recited in Claim 43, wherein the step of displaying  
a floor plan comprises displaying a scanned image of a floor plan.

45. The computer usable media as recited in Claim 43, wherein the computer readable  
program code is further executable to facilitating scanning of a floor plan.

25 46. The computer usable media as recited in Claim 43, wherein the step of displaying  
a plurality of icons comprises displaying a plurality of icons in a toolbox.

30 47. The computer usable media as recited in Claim 43, wherein the computer readable  
program code is further executable to add a text comment to an icon.

48. The computer usable media as recited in Claim 43, wherein the computer readable  
program code is further executable to compile a list of selected upgrade options.

35 49. The computer usable media as recited in Claim 43, wherein the computer readable  
program code is further executable to compile a list of selected upgrade options prices for the  
selected upgrade options.



WORLD INTELLECTUAL PROPERTY ORGANIZATION

International Application Under PCT

5  
Intl. Appl. No. : PCT/US00/07281  
Intl. Filing Date : 17 March 2000  
Applicant : GIOIA, Sandra L.  
10 Title : SYSTEM FOR SPECIFYING BUILDING UPGRADE OPTIONS  
AND DETERMINING BUILDING COST  
Docket No. : 10P/G337/JWE

15

AMENDMENT UNDER ARTICLE 19

20 Post Office Box 7680  
Newport Beach, CA 92660-6441  
29 August 2000

25 **By Facsimile to 011 (41-22) 740.14.35**  
International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

30 Gentlemen

In conjunction with the International Search Report mailed June 30, 2000, Applicant respectfully submits herewith replacement pages 22, 23, 24, 25 and 26 of the claims. Applicant wishes to amend the claims as follows:

35

1. A method for specifying upgrade options for a new building comprising the steps of:

scanning a floor plan of the building into a first computer to form a scanned floor plan;  
displaying the scanned floor plan upon the monitor of a second computer while

40 simultaneously displaying a plurality of icons representative of a corresponding plurality of  
different upgrade options upon the monitor of the second computer; and

selecting at least one of the available upgrade options and designating where the upgrade  
option is to be placed in the building by placing the icons at corresponding locations upon the  
displayed floor plan, and wherein the floor plan is automatically updated to incorporate the

45 selected upgrade options.

15. A system for specifying upgrade options for a building, the system comprising:  
 a scanner for scanning floor plans;  
 a computer in communication with the scanner, the computer having a monitor; and  
 wherein the computer is configured to display a plurality of icons representative of  
 5 upgrade options while simultaneously displaying a scanned floor plan, the computer being further  
 configured to allow selected icons to be placed at desired locations upon the displayed floor plan,  
and wherein the floor plan is automatically updated to incorporate the upgrade options  
represented by the selected icons.

29. A system for specifying upgrade options for a new building, the system  
 comprising:  
 a plurality of digitized floor plans;  
 a computer having a monitor for displaying the floor plans; and  
 wherein the computer is configured to display a plurality of icons representative of  
 15 upgrade options while simultaneously displaying a selected one of the digitized floor plans, the  
 computer being further configured to allow selected icons to be placed at desired locations upon  
 the scanned floor plan, such as by voice recognition and/or by dragging and dropping icons, and  
wherein the selected one of the digitized floor plans is automatically updated to incorporate  
upgrade options represented by the selected icons.

43. A computer usable medium having a computer readable program code embodied  
 therein, the computer readable program code being executable to perform the steps of:  
 displaying a floor plan upon a monitor;  
 displaying a plurality of icons representative of a corresponding plurality of upgrade  
 25 options upon the monitor, the icons being displayed simultaneously with the floor plan; and  
 facilitating selection of desired upgrade options and facilitating designation of where the  
 selected upgrade options are to be placed in a building by placing the icons at corresponding  
 locations upon the displayed floor plan, such as by voice recognition and/or by dragging and  
 dropping icons, wherein the floor plan is automatically updated to incorporate the desired  
 30 upgrade options.

#### REMARKS

Claims 1-65 are in the application, with claims 1, 15, 29 and 43 having been amended.  
 Of the claims under consideration, claims 1, 15, 29, 43, 56 and 62 are the independent claims.

The present invention is generally directed to systems and methods for assisting real estate developers, commercial home builders and real estate purchasers, in combination, to specify the built-out particulars of a contemplated new home. By using this innovative system, a perspective real estate purchaser is able to dynamically plan all of the construction parameters relating to their new home, from site selection within a development, through the entire construction upgrade process, to mortgage and escrow administrative procedures.

The system of the invention allows the purchaser of a new home to designate where upgrade options are to be added in a dynamic fashion, by giving the purchaser a complete list of all of the options available for a particular dwelling, on a room-by-room basis (or even a wall-by-wall basis). Choosing from among a list of options, the purchaser is able to pick-and-place each option and locate it in a particular position with regard to the floor plan of a particular room, in order to build out the perspective dwelling to their specific requirements.

The process is dynamic in that options may be located and/or relocated at will, giving the buyer a considerable degree of freedom in assessing and evaluating their initial choices. Further, the process is dynamic in that as options are added or subtracted from the basic dwelling scope, the price of the upgraded dwelling is dynamically calculated with each option addition. Thus, a buyer is able to incorporate additional upgrade features and determine whether the dwelling remains within their budgetary constraints without the constant back-and-forth negotiation that is currently required for this activity. Once a buyer has determined the final look of their new dwelling, the cost factors can be immediately processed into a form suitable for evaluation and approval by a mortgage lending institution, insurance company, and the like.

This utility is provided as a software application, residing on a personal computer, which extracts information from, and provides information to, a server system which might indeed be nothing more than another personal computer. A perspective buyer may link-up with the system, which might reside on a real estate developer's computer, and is able to evaluate what sites might be available in a perspective development, what models of dwellings might be available for that particular site, and might also be able to choose between and among various upgrade options for customizing the chosen model home.

Real estate developers would provide the site plan information to the system, construction contractors might provide the individualized floor plans of the model homes, and various appliance, window, door, siding, roofing, plumbing, flooring, and wall covering vendors (for example) might supply information as to their various products as options that might be incorporated into the model home.

Thus, specifically, the invention is directed to systems and methods for specifying upgrade options for a new building, wherein a floor plan of the building is scanned into a computer where it is accessible for display simultaneously with a plurality of icons representative

of a corresponding plurality of different upgrade options. At least one of the available upgrade options may be selected, with its desired location designated by placing its corresponding icon at a corresponding location upon the displayed floor plan. The floor plan is automatically updated to reflect the incorporation of the selected upgrades.

5 The art of record cited in the International Search Report dated June 30, 2000, is not understood to disclose, suggest or even infer any of the foregoing, and is particularly not understood to disclose, suggest or infer updating a computerized floor plan with upgrade options, by picking and placing representative icons at specific locations in the floor plan.

Specifically, U.S. Patent No. 5,689,705, to Fino et al., which was cited by the Examiner  
10 as a document of particular relevance, discloses nothing more than a system for facilitating the information transfer and processing associated with home construction and home sales. The '705 reference discloses a system which allows a user to view lots that might be available in a particular development, it further allows the viewer to see floor plan layouts and elevational views for certain model home designs made available by the builder. Specifically, as set forth in  
15 column 5, lines 18-27 of the '705 specification, once a floor plan has been selected, the system of the '705 patent allows the user to choose from among a number of pre-determined options whose features and locations are pre-set with regard to any particular floor plan. In no way does the system of the '705 reference give a user the ability to dynamically pick and place options and upgrades and certainly does not give the user any ability to locate a selected option with respect  
20 to a floor plan.

Indeed, all the user is able to do, according to the disclosure of the '705 reference, is merely to indicate whether or not they desire a certain option. The user has no input into the final design of the floor plan, particularly with regard to the aspect and location of the selected options.

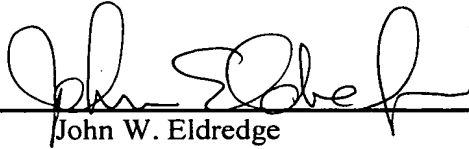
The referenced articles by Mills and Laiserin do nothing to make up for the deficiencies  
25 of the '705 patent as a reference against the claims of the present invention. All that the Mills and Laiserin articles describe is the creation of a floor plan or architectural drawing by use of a Computer Aided Design (CAD) software program. While interesting, discussions regarding the availability and efficacy of CAD programs for performing architectural renderings, is not particularly relevant to the claims of the present invention. The application claims do not involve  
30 CAD renderings of floor plans. Rather, the claims of the present invention are directed to systems and methods which allow floor plans to be modified and updated, at the option of the user, by dynamically allowing features and upgrades to be positioned within an already existing floor plan.

Accordingly, there is nothing in any permissible combination of the '705 reference to  
35 Fino et al., and the Mills and Laiserin articles that would disclose, suggest or infer the inventive features set forth in the claims of the present application. Applicants would, therefore,

respectfully request reconsideration of the indication of relevance for the U.S. Patent No.  
5,689,705 and the articles to Mills and Laiserin.

Respectfully submitted,

STRADLING YOCCA CARLSON & RAUTH

By 

John W. Eldredge  
Reg. No. 37,613  
(949) 725-4143

JWE/mg

Enclosure: Replacement page(s) 22, 23, 24, 25, 26 of the claims

what is claimed is:

1. A method for specifying upgrade options for a new building comprising the steps of:

scanning a floor plan of the building into a first computer to form a scanned floor plan;

5 displaying the scanned floor plan upon the monitor of a second computer while simultaneously displaying a plurality of icons representative of a corresponding plurality of different upgrade options upon the monitor of the second computer; and

10 selecting at least one of the available upgrade options and designating where the upgrade option is to be placed in the building by placing the icons at corresponding locations upon the displayed floor plan, and wherein the floor plan is automatically updated to incorporate the selected upgrade options..

2. The method as recited in Claim 1, wherein the first computer and the second computer are the same computer.

15 3. The method as recited in Claim 1, wherein the second computer comprises at least one of a laptop computer, a palm computer, a pen base computer, a desk top computer and any wireless network computer.

4. The method as recited in Claim 1, wherein the step of displaying a plurality of icons comprises displaying a plurality of icons in a toolbox and the icons are placed by voice recognition and/or by dragging and dropping icons.

20 5. The method as recited in Claim 1, further comprising the step of adding a text comment to a dropped icon.

6. The method as recited in Claim 1, further comprising the step of compiling a list of selected upgrade options.

25 7. The method as recited in Claim 1, further comprising the step of compiling a list of selected upgrade options and prices for the selected upgrade options.

8. The method as recited in Claim 1, further comprising the step of calculating a total price for the selected upgrade options.

9. The method as recited in Claim 1, further comprising the step of calculating a total price for the building, including the upgrade options.

10. The method as recited in Claim 1, further comprising the step of forming a database of purchaser information.

11. The method as recited in Claim 1, further comprising the step of forming a database of purchaser information, the database comprising the name of the purchaser and the  
5 upgrade options purchased by the purchaser.

12. The method as recited in Claim 1, wherein the step of displaying a plurality of icons comprises displaying only those icons which are representative of upgrade options that are available for the displayed floor plan.

13. The method as recited in Claim 1, wherein the floor plan and the icons are  
10 displayed as part of a web page.

14. The method as recited in claim 1, wherein the building comprises a home.

15. A system for specifying upgrade options for a building, the system comprising:  
a scanner for scanning floor plans;  
a computer in communication with the scanner, the computer having a monitor; and  
15 wherein the computer is configured to display a plurality of icons representative of upgrade options while simultaneously displaying a scanned floor plan, the computer being further configured to allow selected icons to be placed at desired locations upon the displayed floor plan, and wherein the floor plan is automatically updated to incorporate the upgrade options represented by the selected icons.

20 16. The system for specifying upgrade options for a new building as recited in Claim 15, further comprising a plurality of digitized floor plans stored for use by the computer.

17. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer comprises at least one of a laptop computer, a palm computer, a pen base computer, a desk top computer and any wireless network computer.

25 18. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to display the icons in a toolbox, and to place the icons by voice recognition and/or by dragging and dropping icons.

19. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to facilitate adding a text comment to an icon.

20. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to facilitate compiling of a list of selected upgrade options.

5 21. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to facilitate compiling of a list of selected upgrade options and prices for the selected upgrade options.

22. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to calculate a total price for the selected upgrade options.

10 23. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to calculate a total price for the building, including the upgrade options.

24. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to form a database of purchaser information.

15 25. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to form a database of purchaser information, the database comprising the name of the purchaser and the upgrade options purchased by the purchaser.

26. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to display only those icons which are representative of upgrade options that are available for the displayed floor plan.

20 27. The system for specifying upgrade options for a new building as recited in Claim 15, wherein the computer is configured to display the floor plan and the icons as part of a web page.

28. A system for specifying upgrade options for a new building as recited in claim 15, wherein the new building comprises a home.

25 29. A system for specifying upgrade options for a new building, the system comprising:

a plurality of digitized floor plans;

a computer having a monitor for displaying the floor plans; and

30 wherein the computer is configured to display a plurality of icons representative of upgrade options while simultaneously displaying a selected one of the digitized floor plans, the



computer being further configured to allow selected icons to be placed at desired locations upon the scanned floor plan, such as by voice recognition and/or by dragging and dropping icons, and wherein the selected one of the digitized floor plans is automatically updated to incorporate upgrade options represented by the selected icons.

5           30.     The system for specifying upgrade options for a new building as recited in Claim 29, wherein the digitized floor plans comprise scanned floor plans.

          31.     The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to display only those icons which represent upgrades that are available for a floor plan which is currently being displayed.

10          32.     The system for specifying upgrade option as recited in claim 29, further comprising a toolbox within which the icons are displayed upon the monitor.

          33.     The system for specifying upgrade options as recited in claim 29, wherein the computer comprises at least one of a laptop computer, a palm computer, a desk top computer and any wireless network computer.

15          34.     The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to facilitate adding a text comment to an icon.

          35.     The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to compile a list of selected upgrade options.

20          36.     The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to compile a list of selected upgrade options and prices for the selected upgrade options.

          37.     The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to calculate a total price for the selected upgrade options.

25          38.     The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to calculate a total price for the building, including the upgrade options.

          39.     The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to form a database of purchaser information.

40. The system for specifying upgrade options as recited in claim 29, wherein the computer is configured to form a database of purchaser information, the database comprising the name of the purchaser and the upgrade options purchased by the purchaser.

5 41. The system for specifying upgrade options as recited in claim 29, wherein the floor plan and the icons are displayed as part of a web page.

42. The system for specifying upgrade options as recited in claim 29, wherein the new building comprises a home.

43. A computer usable medium having computer readable program code embodied therein, the computer readable program code being executable to perform the steps of:

10 displaying a floor plan upon a monitor;

displaying a plurality of icons representative of a corresponding plurality of upgrade options upon the monitor, the icons being displayed simultaneously with the floor plan; and

15 facilitating selection of desired upgrade options and facilitating designation of where the selected upgrade options are to be placed in a building by placing the icons at corresponding locations upon the displayed floor plan, such as by voice recognition and/or by dragging and dropping icons, wherein the floor plan is automatically updated to incorporate the desired upgrade options.

44. The computer usable media as recited in Claim 43, wherein the step of displaying a floor plan comprises displaying a scanned image of a floor plan.

20 45. The computer usable media as recited in Claim 43, wherein the computer readable program code is further executable to facilitating scanning of a floor plan.

46. The computer usable media as recited in Claim 43, wherein the step of displaying a plurality of icons comprises displaying a plurality of icons in a toolbox.

25 47. The computer usable media as recited in Claim 43, wherein the computer readable program code is further executable to add a text comment to an icon.

48. The computer usable media as recited in Claim 43, wherein the computer readable program code is further executable to compile a list of selected upgrade options.

30 49. The computer usable media as recited in Claim 43, wherein the computer readable program code is further executable to compile a list of selected upgrade options prices for the selected upgrade options.